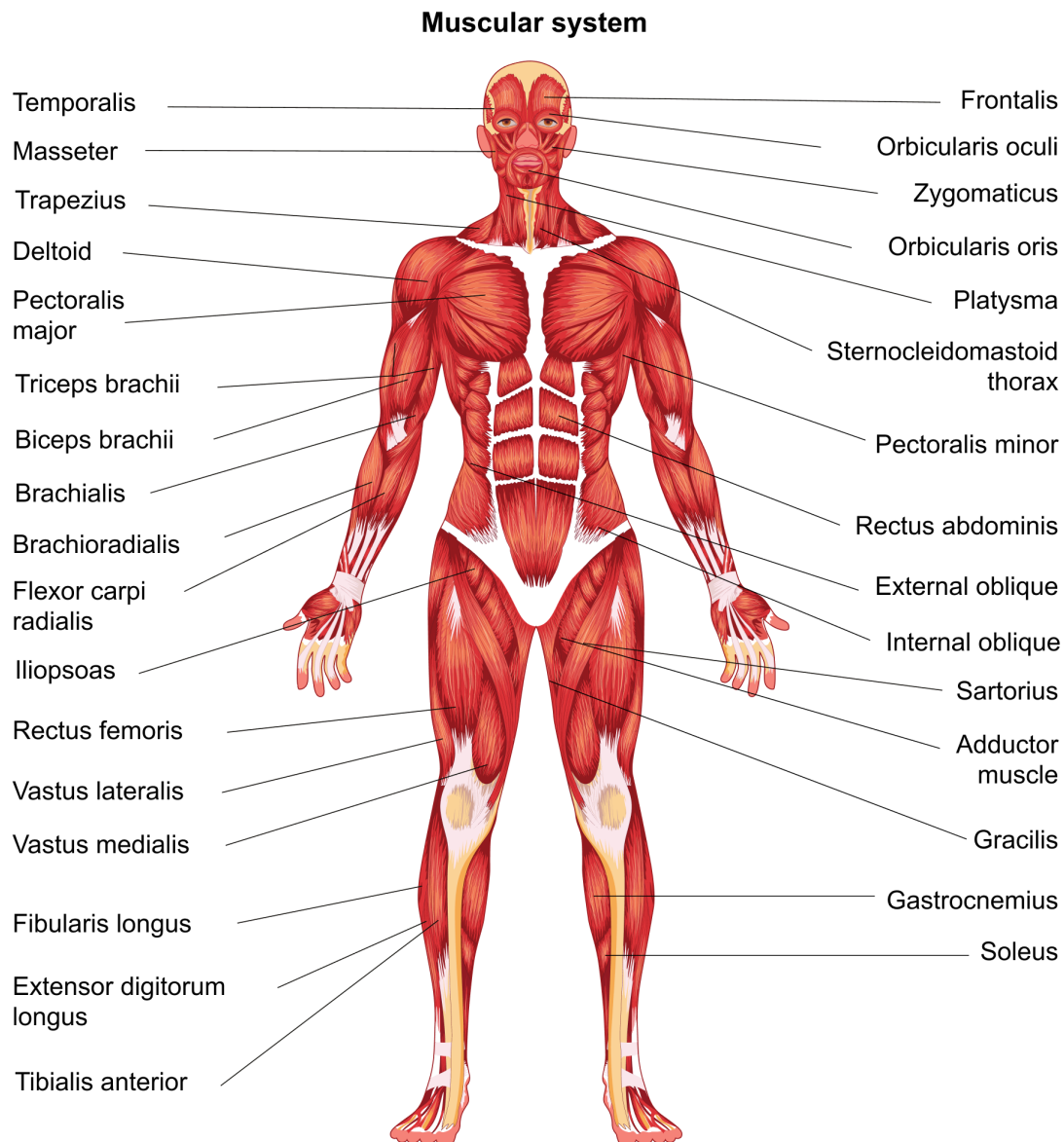


# Muscle Diagram

The skeletal muscle system consists of specialized muscle fibers that primarily function through a contraction. These fibers enable movement by attaching to bones, internal organs, and blood vessels. While most body movements, like walking and running, are produced by skeletal muscles, these muscles also facilitate subtle actions such as facial expressions and eye movements.

Additionally, muscle contraction plays a crucial role in maintaining posture, stabilizing joints, and generating heat, with nearly 85% of the body's heat produced through muscle activity.



- **Adductor muscle:** This group of thigh muscles pulls the legs together (adduction) and is crucial for activities like running and cycling.
- **Biceps brachii:** Located at the front of the upper arm, this muscle aids in elbow flexion and is essential for lifting and pulling movements.
- **Brachialis:** Found underneath the biceps, this muscle assists in elbow flexion, especially effective when the arm is pronated.
- **Brachioradialis:** A forearm muscle that helps flex the elbow, particularly with the forearm in a midposition, it contributes to various gripping tasks.

- **Deltoid:** Covering the shoulder joint, this triangular muscle is responsible for arm abduction and rotation, making it essential for overhead movements.
- **External oblique:** This muscle, located on the side of the abdomen, aids in trunk rotation and lateral flexion, playing a key role in twisting and bending motions.
- **Extensor digitorum longus:** Situated in the lower leg, this muscle extends the toes and assists with dorsiflexion of the foot, vital for walking and running.
- **Fibularis longus:** Positioned on the outer side of the lower leg, it helps with foot eversion and plantar flexion, important for balance.
- **Flexor carpi:** A group of forearm muscles, these flex the wrist, which is crucial for gripping and lifting activities.
- **Frontalis:** Located in the forehead, this muscle helps raise the eyebrows and wrinkle the forehead, contributing to various facial expressions.
- **Gastrocnemius:** This major calf muscle is involved in plantar flexion of the foot and knee flexion, essential for jumping and running.
- **Gluteus maximus:** As the largest buttock muscle, it plays a key role in hip extension and external rotation, important for climbing and standing.
- **Gracilis:** This thin muscle in the inner thigh assists in hip adduction and knee flexion, aiding movements like squatting.
- **Iliopsoas:** A crucial hip flexor muscle group made up of the iliacus and psoas major, it brings the legs toward the torso.
- **Internal oblique:** Located beneath the external oblique, this muscle assists with trunk rotation and lateral flexion, helping maintain core stability.
- **Masseter:** A powerful muscle in the jaw, it elevates the mandible and aids in chewing, which is essential for biting and grinding food.
- **Pectoralis major:** This large chest muscle is involved in shoulder joint movement, playing a key role in pushing motions.
- **Pectoralis minor:** A smaller chest muscle that assists in the movement of the scapula, contributing to shoulder stability.
- **Platysma:** Running from the jaw to the chest, this superficial muscle is involved in facial expressions like frowning.
- **Rectus abdominis:** A long muscle in the front of the abdomen, it helps flex the spine and stabilize the pelvis, important for core strength.
- **Rectus femoris:** Part of the quadriceps group, this muscle in the thigh assists in both knee extension and hip flexion, crucial for running and jumping.
- **Sartorius:** Known as the longest muscle in the body, it runs across the thigh and is involved in hip flexion, abduction, and knee flexion, aiding movements like crossing the legs.
- **Sternocleidomastoid:** Located in the neck, this muscle helps with head rotation and flexion, important for looking side to side and nodding.
- **Temporalis:** Situated on the side of the head, it is responsible for closing the jaw, playing a key role in chewing.
- **Tibialis anterior:** This muscle in the front of the lower leg dorsiflexes and inverts the foot, essential for walking and running.

- **Trapezius:** A large upper back muscle, it helps move, rotate, and stabilize the shoulder blade while extending the neck, important for posture.
  - **Triceps brachii:** Found on the back of the upper arm, this muscle is responsible for elbow extension and plays a key role in pushing movements.
  - **Vastus lateralis:** Located on the outer thigh, this muscle is part of the quadriceps and is mainly responsible for knee extension, crucial for squatting.
  - **Vastus medialis:** Positioned on the inner thigh, this quadriceps muscle is involved in knee extension and is important for stability during movement.
  - **Zygomaticus:** This muscle extends from the zygomatic bone to the corners of the mouth and is involved in smiling and facial expressions.
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## Additional notes

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## References

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